DATA SHEET

# DXLink™ Multi-Format Decor Style Wallplate Transmitters (US)

DX-TX-DWP-BL (FG1010-325-BL)
DX-TX-DWP -WH (FG1010-325-WH)

## Overview

**The DXLink Multi-Format Decor Style Wallplate Transmitter sends analog or digital video including HDMI/HDCP, along with embedded audio or supplemental analog audio up to 100 meters to an Enova DGX Digital Media Switcher, compatible Enova DVX All-In-One Presentation Switcher, or directly to a DXLink Receiver. It receives Power over DXLink* from the Enova DGX, Enova DVX (3155HD, 3156HD or 2155HD), PS-POE-AT-TC High Power PoE Injector or PDXL-2 Dual Power over DXLink Controller over the twisted pair cable and features both a multi-format analog port to support legacy devices and an HDMI port to support newer digital devices.**

### Common Applications

Mount the DXLink Multi-Format Decor Style Wallplate Transmitter in the wall, lectern or popular floor box to connect guest equipment and send audio and video signals across the room, on the other side of the house or in a classroom down the hall. Since it is powered remotely, the wallplate can be installed virtually anywhere.

### Features

- **Only One Cable** – Send audio and video, while passing Ethernet signals and power over one twisted pair cable
- **Multi-Format Analog Port and HDMI Port** – Supports legacy analog signals - RGBHV, Component, S-Video, and Composite, and digital HDMI/HDCP, DisplayPort++ and DVI signals

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- **Send HDMI signals up to 100 meters** – Extend the reach of the HDMI signals far beyond the capabilities of typical HDMI cabling
- **Standard Twisted Pair Cable** – Save time and effort in installation by leveraging cost effective twisted pair cable, see the Cabling for Success with DXLink white paper for more details
- **Easy Installation** – Mounts in standard decor style wallplates
- **Power over DXLink* Enabled** – Designed for use with Enova DGX or DVX systems with DXLink inputs, PS-POE-AT-TC (FG423-84) or PDXL-2 (FG1090-170) to provide remotely located Power over DXLink (requires firmware v1.2.40 or above)
- **DXLink Direct Connection** – When receiving Power over DXLink* from the PS-POE-AT-TC or PDXL-2, DXLink Wallplates can be connected directly to a DXLink Receiver for a point-to-point solution

* Power must be supplied by one of the following DXLink Power sourcing devices: Enova DGX 8/16/32/64 Digital Media Switcher (with a DXLink Twisted Pair Input Board installed), Compatible Enova DVX All-In-One Presentation Switcher (3155HD, 3156HD or 2155HD), PS-POE-AT-TC High Power PoE Injector or PDXL-2 Power over DXLink Controller. AMX only supports the use of these approved Power over DXLink solutions. Other third party power supplies or non-compatible standard PoE solutions may damage the DXLink equipment.

**Dealer Benefits**

- **HDMI/HDCP with the Simplicity of Analog** - Hassle-free plug-and-play operation eliminates the need for time consuming, cumbersome work-around tools to deal with HDCP key constraints and resolution incompatibilities
- **Installation Friendly** - Standard two gang size and remote powering capabilities allows the wallplate to be installed in virtually any location
- **Complements Any Environment** - Decor Wallplate is available in black or white and blends well in both commercial and residential applications

**Customer Benefits**

- **Interruption-Free Content** - Exclusive InstaGate Pro® Technology allows audio and video to be switched quickly and easily to every connected display without the difficulties typically associated with HDCP
- **Easily Connect Guest Devices** - Provides a versatile solution for environments where sources are consistently changing

**Additional Features**

- **Power Remotely** – Power over DXLink* is carried over twisted pair to simplify installation when used with the Enova DGX, Enova DVX, PS-POE-AT-TC or PDXL-2
- **3D Support** - Pass through latest video formats including 3D and Deep Color
- **Surround Sound Support** - Pass through high definition surround sound including Dolby TrueHD, DTS-HD Master Audio, Dolby Digital, DTS and 2-channel through 8-channel L-PCM at 32 kHz, 44.1 kHz, 48 kHz, 96 kHz, 192kHz
- **HDCP Compliant**

* Power must be supplied by one of the following DXLink Power sourcing devices: Enova DGX 8/16/32/64 Digital Media Switcher (with a DXLink Twisted Pair Input Board installed), Compatible Enova DVX All-In-One Presentation Switcher (3155HD, 3156HD or 2155HD), PS-POE-AT-TC High Power PoE Injector or PDXL-2 Power over DXLink Controller. AMX only supports the use of these approved Power over DXLink solutions. Other third party power supplies or non-compatible standard PoE solutions may damage the DXLink equipment.

**Specifications**

| GENERAL | |
|---|---|
| Dimensions (HWD) | 4 1/16" x 3 1/2" x 2 1/4" (10.31 cm x 8.84 cm x 5.72 cm) |
| Installation | Mounts onto standard double-gang US back box<br>Mounts into standard decor style wallplates (not included) |
| Weight | Approximately 75 lb (0.34 kg) |

| | |
|---|---|
| Shipping Weight | Approximately 1.3 lb (.61 kg) |
| MTBF | 381,000 hours |
| Airflow | Natural convection via air vent openings on front, back and top |
| Compatible AMX Products | •Enova DGX 8/16/32/64 Digital Media Switchers<br>•Enova DVX-3155HD, DVX-3156HD and DVX-2155HD All-In-One Presentation Switchers<br>•DXLink HDMI RX as a point-to-point solution (when Wallplates are powered by PS-POE-AT-TC or PDXL-2)<br>•PS-POE-AT-TC High Power PoE Injector<br>•PDXL-2 Power over DXLink Controller |
| Regulatory Compliance | FCC<br>CE EN 55022<br>CE EN 55024<br>CE EN 60950-1<br>IEC 60950-1<br>UL 60950-1<br>RoHS / WEEE compliant |
| Recommended Accessories | CC-USB, USB Programming Cable (FG10-5965) |

| **DXLink TWISTED PAIR** | |
|---|---|
| Transport Layer Throughput (Max) | 10.2 Gbps |
| Twisted Pair Cable Type | Shielded Cat6, Cat6A and Cat7<br>**DXLink twisted pair cable runs for DXLink equipment shall only be run within a common building where a common building is defined as: the walls of the structure(s) are physically connected and the structure(s) share a single ground reference**<br><br>For more details and helpful cabling information, reference the white paper titled Cabling for Success with DXLink, or contact your AMX representative |
| Twisted Pair Cable Length | Up to 328 ft (100 m) |

| **ACTIVE POWER REQUIREMENTS** | |
|---|---|
| DXLink Power | Power must be supplied by a DXLink Power sourcing device such as:<br>•Enova DGX 8/16/32/64 Digital Media Switcher (with a DXLink Twisted Pair Input Board installed)<br>•Compatible Enova DVX All-In-One Presentation Switcher (DVX-3155HD, DVX-3156HD or DVX-2155HD)<br>•PS-POE-AT-TC High Power PoE Injector<br>•PDXL-2 Power over DXLink Controller<br><br>When installed in conjunction with an Enova DGX use the Enova DGX Configuration Tool located at AMX.com/enova to determine the power requirements of the configuration<br><br>**AMX only supports the use of these approved Power over DXLink solutions. Other third party power supplies or non-compatible standard PoE solutions may damage the DXLink equipment.** To use PS-POE-AT-TC or PDXL-2 as a power source the wallplates require firmware v1.2.40 or above |
| Power Connector | Included on DXLink Connection |
| Power Consumption (Max) | Power over DXLink supplied: 7 W |

| POWER SUPPLY | |
|---|---|
| External, Required | Power must be supplied by a DXLink Power sourcing device such as:<br>•Enova DGX 8/16/32/64 Digital Media Switcher (with a DXLink Twisted Pair Input Board installed)<br>•Compatible Enova DVX All-In-One Presentation Switcher (DVX-3155HD, DVX-3156HD or DVX-2155HD)<br>•PS-POE-AT-TC High Power PoE Injector<br>•PDXL-2 Power over DXLink Controller<br><br>**AMX only supports the use of these approved Power over DXLink solutions. Other third party power supplies or non-compatible standard PoE solutions may damage the DXLink equipment.** To use PS-POE-AT-TC or PDXL-2 as a power source the wallplates require firmware v1.2.40 or above |

| ENVIRONMENTAL | |
|---|---|
| Temperature (Operating) | 32° to 104° F (0° to 40° C) |
| Temperature (Storage) | -22° to 158° F (-30° to 70° C) |
| Humidity (Operating) | 5% to 85% RH (non-condensing) |
| Humidity (Storage) | 0% to 90% RH (non-condensing) |
| Heat Dissipation (Max) | Power over DXLink supplied: 24 BTU/hr |

| FRONT CONNECTORS<br>User Accessible (accessible with faceplate mounted) | |
|---|---|
| HDMI Input | HDMI Type A Female |
| Analog Video Input | HD-15 (Breakout cable required for non RGB formats) |
| Analog Stereo Input | 3.5mm Mini-Stereo Jack |
| USB (HID) Keyboard & Mouse | USB Mini-B Connector |

| FRONT CONNECTORS<br>Setup Front Connectors (not accessible with faceplate mounted) | |
|---|---|
| Advanced Configuration Interface | USB Mini-B Connector |
| ID Pushbutton | Toggle between DHCP and static IP addressing<br>Places system in NetLinx Device ID assignment mode<br>Reset the factory default settings<br>Restore the factory firmware image |
| Reset Pushbutton | Resets/reboots the CPU of the wallplate |

| BACK CONNECTORS | |
|---|---|
| DXLink Output | RJ-45 |

| CONTROL | |
|---|---|
| Advanced Configuration Interface | USB Mini-B Connector |

| INDICATORS | |
|---|---|
| Power Indicator | Green indicates whether or not the module is powered on |

| USB (HID) KEYBOARD & MOUSE | |
|---|---|
| USB (HID) | (1) USB Mini A/B Connector (“HOST”)<br><br>Use in conjunction with an Enova DGX Digital Media Switcher, connect a DXLink TX (twisted pair or fiber) to a PC and emulate keyboard and mouse commands from a DXLink Fiber Receiver (twisted pair or fiber)<br><br>For a list of HID devices which have been tested and found to be working well with the latest firmware please visit: http://www.amx.com/products/AVB-RX-DXLINK-HDMI.asp and view the document “DXLink HID Keyboard and Mouse Supported Devices”. |

| HDMI | |
|---|---|
| Compatible Formats | HDMI, HDCP , DVI |
| Input Signal Type | HDMI<br>DVI-D (Single Link With Cable Adapter)<br>DisplayPort ++ (Input Only, With HDMI Cable Adapter) |
| Input Connector | HDMI Type A Female |
| Propagation Delay (Typ) | 5 us |
| Input Voltage (Nominal) | 1.0 Vpp Differential |
| Input Re-clocking (CDR) | Yes |
| Input Equalization | Yes, Adaptive |
| Data Rate (Max) | 4.95 Gbps / 6.75 Gbps<br>6.75 Gbps supported when the DXLink HDMI RX Scaler is in Bypass mode and format is 1080p60 or less |
| Video Pixel Clock (Max) | 165 MHz / 225 MHz<br>225 MHz supported when the DXLink HDMI RX Scaler is in Bypass mode and format is 1080p60 or less |
| Progressive Resolution Support | 480p up to 1920x1200 @ 60 Hz including but not limited to those resolutions shown in the DXLink Twisted Pair Transmitters/Receiver Instruction Manual |
| Interlaced Resolution Support | 480i, 576i, 1080i including but not limited to those resolutions shown in the DXLink Twisted Pair Transmitters/Receiver Instruction Manual. If input is interlaced, all scaled outputs will deinterlace video to a progressive resolution format. If in scaler Bypass mode interlaced input will pass through |
| Deep Color Support | 24-bit, 30-bit, 36-bit<br>30-bit, 36-bit supported when the DXLink HDMI RX Scaler is in Bypass mode and format is 1080p60 or less |
| Color Space Support | RGB 4:4:4<br>YCbCr 4:4:4 and 4:2:2<br>(Input signal support for YCbCr 4:4:4 and 4:2:2, output color-space is converted to RGB 4:4:4) |
| 3D Format Support | Yes, when scaler on corresponding output board or DXLink RX is set to Bypass mode<br>Frame Packing 1080p up to 24Hz<br>Frame Packing 720p up to 50/60Hz<br>Frame Packing 1080i up to 50/60Hz<br>Top-Bottom 1080p up to 24Hz<br>Top-Bottom 720p up to 50/60Hz<br>Side-by-Side Half 1080p up to 50/60Hz |
| Audio Format Support | Dolby TrueHD, Dolby Digital, DTS-HD Master Audio, DTS, 2 CH through 8 CH L-PCM<br>Dolby Digital and DTS support up to 48kHz, 5.1 |

| | |
|---|---|
| | channels |
| Audio Resolution | 16 bit to 24 bit |
| Audio Sample Rate | 32 kHz, 44.1 kHz, 48 kHz, 96 kHz, 192kHz |
| Local Audio Support | Yes for audio insertion |
| HDCP Support | Yes<br>Supports AMX HDCP InstaGate Pro Technology<br>When used with an Enova DGX 8/16/32/64 Digital Media Switcher the key support is up to 16 sinks per output, independent of source device<br><br>When used as a single point to point solution the key support is defined by the source device |
| CEC Support | None |
| DDC/EDID Support | The HDMI EDID in point to point mode is passed up from the sink device.<br><br>When used with Enova DGX 8/16/32/64 Digital Media Switcher or Enova DVX-3155HD, DVX-3156HD or DVX 2155HD the HDMI EDID is passed from the Enova Switcher input to the TX and is user reprogrammable. The analog video input connection provides a fixed EDID set |

| **ANALOG VIDEO** | |
|---|---|
| Compatible Formats | RGBHV, RGBs, RGsB<br>YPbPr (HDTV)<br>Y/c (S-Video), C (Composite) |
| Progressive Resolution Support | 480p up to 1920x1200 @ 60 Hz (reference the DXLink Twisted Pair Transmitters/Receiver Instruction Manual for extended list) |
| Interlaced Resolution Support | 480i, 576i, 1080i (reference DXLink Twisted Pair Transmitters/Receiver Instruction Manual for extended list)<br>If input is interlaced, all scaled outputs will deinterlace video to a progressive resolution format. If in scaler Bypass mode interlaced input will pass through unaltered |
| Auto-Adjust Input | Supported |
| RGB Input Signal Level Range | 1 Vpp nominal |
| RGB Input Impedance | 75 Ω |
| HV Sync Input Signal Level Range | 2 to 5 Vpp |
| HV Sync Input Impedance | 2.5 pF Typ, 10 pF Max |
| Digital Processing | 24 bit, 165 MHz |
| Y/Pb/Pr Input Signal Level Range | 1.0 Vpp for Y, 700 mVpp for Pb Pr |
| Y/Pb/Pr Input Impedance | 75 Ω |
| Y/c (S-Video) Input Signal Level Range | 1.0 Vpp for Y, 1.0 Vpp for c |
| Y/c (S-Video) Input Impedance | 75 Ω |
| C (Composite) Input Signal Level Range | 1.0 Vpp |
| C (Composite) Input Impedance | 75 Ω |
| Input Connector | HD-15 (Breakout cable required for non RGBHV formats) |

| **AUDIO (ANALOG & DIGITAL S/PDIF)** | |
|---|---|
| Input Signal Types | Stereo Analog, S/PDIF<br>Video signal must be present to pass Audio |
| Analog Input Level (Max) | +2 dBu, unbalanced |

| | |
|---|---|
| Analog Input Impedance | 10k Ω |
| Analog to Digital Conversion | 48 kHz Sample Rate, 24-bit |
| S/PDIF Audio Format Support | Dolby Digital, DTS, 2 CH L-PCM<br>Dolby Digital and DTS support up to 48kHz, 5.1 channels |
| S/PDIF Resolution | 16 to 24 bit |
| S/PDIF Sample Rate | 32 kHz, 44.1 kHz, 48 kHz, 96 kHz |
| S/PDIF Input Signal Level Range | 200 mVpp to 600mVpp terminated |
| S/PDIF Input Impedance | 75 Ω |
| Analog to Digital Reference Level | +2.5 dBu = 0 dBfs |
| Input Connectors | 3.5mm Mini-Stereo Jack (Analog Stereo)<br>RCA Jack (S/PDIF) |

For a detailed PDF or DXF pictorial drawing please visit: http://www.amx.com/products/DX-TX-DWP.asp

**About AMX**

AMX hardware and software solutions simplify the implementation, maintenance, and use of technology to create effective environments. With the increasing number of technologies and operating platforms at work and home, AMX solves the complexity of managing this technology with reliable, consistent and scalable systems. Our award-winning products span control and automation, system-wide switching and audio/video signal distribution, digital signage and technology management. They are implemented worldwide in conference rooms, homes, classrooms, network operation / command centers, hotels, entertainment venues, broadcast facilities, and more. ©2014 AMX. All rights reserved.

**Specifications subject to change. Revised 11-August-2014.**

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